5-1-2018

The Economics of the World Cup

Victor Matheson
College of the Holy Cross, vmatheso@holycross.edu

The Economics of the World Cup

By

Victor Matheson

May 2018

COLLEGE OF THE HOLY CROSS, DEPARTMENT OF ECONOMICS
FACULTY RESEARCH SERIES, PAPER NO. 18-05*

Department of Economics
College of the Holy Cross
Box 45A
Worcester, Massachusetts 01610
(508) 793-3362 (phone)
(508) 793-3708 (fax)

http://academics.holycross.edu/economics-accounting

The Economics of the World Cup

By

Victor A. Matheson[†]
College of the Holy Cross

May 2018

Abstract

The quadrennial World Cup is perhaps the world's most popular sporting event with millions of live fans and a worldwide television audience in the billions. It is also one of the most costly events to host with recent hosts countries such as Brazil and Russia spending around $12 billion putting on the tournament. This paper examines the costs and the benefits of hosting the World Cup with a focus on historical data and past economic impact studies.

JEL Classification Codes: Z28, O18, R53

Keywords: soccer, mega-event, tourism, World Cup, FIFA

[†] Department of Economics and Accounting, Box 157A, College of the Holy Cross, Worcester, MA 01610-2395, 508-793-2649 (phone), 508-793-3708 (fax), vmatheso@holycross.edu

Introduction

Every four years the world's attention turns to the FIFA World Cup.[1] Other than potentially the Summer Olympic Games, no other sporting tournament can claim the worldwide appeal or the financial prowess of the World Cup. In total, nearly a billion watched at least some portion of the 2014 World Cup final between Argentina and Germany, and almost 3 million fans packed stadiums throughout the host country of Brazil during the course of the month-long tournament. (Tharoor, 2016) 208 countries (or recognized entities by FIFA) participated in 845 qualification matches in order to earn one of the 32 spots for the 2018 World Cup in Russia.

The earliest roots of the modern World Cup date back to 1863 when the English Football Association, soccer's first governing body, was formed. A few short years later, in 1872, the first international soccer match was played, a 0-0 draw between the national sides of England and Scotland. Soccer joined the Olympics in 1900 creating the first semblance of a world championship for soccer.

In 1904, the heads of seven European soccer associations met in Paris to form the Fédération Internationale de Football Association, better known as FIFA, and the first international match played under the auspices of the newly formed organization was played later in that year. Of course, the founding of FIFA in Paris is the reason that a French name is used for the governing body of a sport first organized in England. FIFA solidified its claim as the world's dominant organizing body for the sport when the national associations of England, Scotland,

[1] Several other sports, including most prominently Cricket and Rugby, also hold major international events dubbed the "World Cup". For the purposes of this paper, the term "World Cup" is meant to signify the soccer tournament unless specifically noted otherwise. In addition, much to the chagrin of our colleagues in the rest of the world, the term "soccer" will be used throughout this chapter as opposed to "football" to differentiate the sport from its American and Australian counterparts.

Wales, and Northern Ireland joined the organization in 1905. (Leeds, von Allmen, and Matheson, 2018)

Tension immediately arose between the International Olympic Committee (IOC) and FIFA regarding the role of amateurism in the Olympics. The IOC held forth that amateurism was a noble goal at the heart of the Olympic Games while FIFA both recognized and encouraged the growth of professionalism in soccer. In response to the growing gap between the quality of play of the amateur players in the Olympics and that of the expanding professional leagues around the world, and of course in the hopes of creating financially viable source of revenues for FIFA, FIFA staged in first World Cup in 1930 and designated it to be held every four years opposite the Summer Olympics.[2]

Due to the number of large stadiums required to host the event, FIFA has always awarded the event to an entire country rather than a single city like the Olympics. Also unlike the Olympics, which until recently were rarely held in developing nations, the World Cup has been hosted by countries outside the industrialized Western world from the very start. Indeed, the inaugural tournament was hosted by Uruguay, and between 1930 and 1990, the tournament essentially alternated between Europe and Latin America, the two traditional powerhouse regions for the sport. Beginning in 1994, FIFA, both in order to satisfy the demands of its member nations in confederations outside of Europe and South America, as well as to promote the game in areas outside of its bases of popularity, began to award the tournament to uncharted regions. The United States hosted in 1994, becoming the first country outside of Europe and Latin

[2] "Soccer continued to be played in the Olympics but it featured only amateur players. When the Olympics began to include professional players in other sports, FIFA resisted inclusion of professional players in order to maintain the supremacy of the World Cup. Since 1992, the Olympics Men's soccer tournament has featured only teams of players under the age of 23, although professionals are allowed and each team is permitted to include up to 3 over-age players." (Leeds, von Allmen, and Matheson, 2018, pg. 234)

America to host. This selection was followed by 2002 in Japan and South Korea, the first jointly hosted World Cup as well as the first World Cup in Asia. 2010 witnessed South Africa becoming the first African host. In 2014, the tournament was played in Brazil, returning to South America for the first time in 40 years. In 2018 Russia became the first Eastern European nation to host and they will be followed in 2022 by the first Middle Eastern host country in Qatar.

Countries compete vigorously for the right to host the World Cup, and many of the recently scandals that have engulfed FIFA over the past several years have involved bribery allegations related to the World Cup selection process. Nearly every World Cup bid since 1998 has involved claims of bribery or vote swapping by at least some of the bidding nations or participating FIFA executives during the selection process culminating multiple arrests of leading FIFA officials through 2015 and the election of a new FIFA President along with the passage of major reforms in 2016. (Matheson, Schwab, and Koval, 2018) Is the World Cup such a valuable prize to be won, that countries and individuals should be engaging in criminal actions in order to secure the rights to host? The rest of this chapter explores the economic costs and benefits of the World Cup.

The Costs of Hosting the World Cup

Hosting the World Cup involves three major costs. The first is the cost building the required sporting infrastructure. Under the current tournament format FIFA requires host countries to have a minimum of 12 modern stadiums capable of seating at least 40,000 spectators with at least one of the stadiums able to seat at least 80,000 for the opening match and the final. (Baumann and Matheson, 2018). With the expansion of the number of teams in 2026 to 48 (up from the current 32), the requisite number of stadiums could also be expected to rise. Outside of

the United States, few countries can boast of a sufficient number of existing stadiums to meet FIFA's requirements. FIFA expects the local host country to fully cover this expense, although they may share a portion of the revenues generated by the tournament with the local organizers to offset these costs.

The next necessary expense is the cost of related general infrastructure required to accommodate the expected influx of tourists during the event. Such expenditures may include transportation projects such as upgraded airports, new and improved mass transit systems, or an increase in hotel capacity. Again, these expenses are typically covered by the host country.

Finally, there are the operations costs of actually organizing the event itself. These expenses include the cost of transporting and housing the players and coaches, event administrators, and game officials. In addition, there are marketing, ticketing, and hospitality costs as well as the expenses associated with televising the matches for international viewing. Finally, FIFA makes significant payments to the teams involved in the tournament in the form of reimbursing preparation costs as well as prize money. FIFA typically covers all of these operating costs.

On the other hand, the local host has generally covered operating costs associated with game day staffing and stadium operations. In addition, the costs of beefed-up security must be considered both in light of concerns related to the event becoming a target of terrorist activities as well as soccer's unfortunate history of hooliganism and fan violence. Table 1 shows the expenses reported by FIFA for the 2011-2014 World Cup cycle that culminated with the World Cup in Brazil. Table 2 shows the reported costs to the host countries of previous World Cups broken down as best possible into the various components.

As is clear from Table 2, the costs of hosting the tournament can be substantial. Brazil's nearly $12 billion price tag for hosting the 2014 World Cup was roughly similar to their cost for hosting the Summer Olympics in Rio just two years later. Russia is expected to have also spent about $12 billion on the 2018 tournament while Qatar's 2022 bid is expected to top $200 billion in total spending once all costs are accounted for making it the most expensive sporting mega-event in history by a wide margin. It is also not uncommon for hosting costs to exceed their initial estimates. In late 2017, Russia increased its 2018 World Cup budget by nearly $600 million. (AP, 2017)

It is also important to note that while the costs of hosting the World Cup have dramatically escalated over the past two decades, the concept of the World Cup embodying a "pay to play" mentality is nothing new. Uruguay won the right to host the very first World Cup in 1930 by not only agreeing to pay for the travel costs of all of the participating teams, in particular those coming all of the way from Europe, but Uruguay also agreed to build a grand new stadium, the Estadio Centenario, for the event. And of course, last minute snafus and escalating events costs have also been the norm. The Estadio Centenario was not completed in time for the start of the tournament so that the first round of games had to be played at an alternative site. (Matheson, Schwab, and Koval, 2018)

The Benefits of Hosting the World Cup – The predictions

Although the costs of hosting can be daunting, such a large scale event can also bring in significant benefits. The most obvious benefit comes in the form of revenue generated by ticket sales, television rights, sponsorships, licensing, and concessions or other in-stadium revenues. FIFA collects all of these revenues, although as mentioned previously, it typically shares a

portion of these monies with the local organizing committee to help defray the host's operating costs. Table 3 shows the World Cup revenues reported by FIFA for the 2011-2014 World Cup cycle. Comparing the costs delineated in Table 1 to the revenues shown in Table 3, it can be seen that the 2014 World Cup generated profits for FIFA in excess of $2.6 billion.

Outside of the profits generated directly for FIFA, in terms of the local (or national) economy of the host country, the World Cup can provide a short-term economic boost during the preparation phase of the event as the country spends on construction projects. Of course, using the World Cup construction as a tool for fiscal stimulus is a fool's errand since it is nearly impossible to predict the state of a country's economy immediately preceding the World Cup at the time the country is actually bidding for the event. Thus, as noted by Baade and Matheson (2016, pg. 207), "…the spending involved with the [World Cup] is as likely to redistribute spending in an economy near full employment as it is to lift an economy out of recession. Indeed, unless unemployment is high, employment gains in construction are not an important economic benefit since they come at the cost of employment losses in other industries."

The event can also provide a short-run boost in tourism during the event. Event organizers frequently tout impressive expected tourism figures. Grant Thornton South Africa and the Brazilian Sport Ministry predicted in the neighborhood of half a million visitors for the tournaments in their countries while the German Federation of Hotels predicted a whopping 3.1 million foreign guests for the 2006 World Cup. Of course, these visitors bring along their wallets bumping up consumer spending and the need for workers in the host country. Table 4 highlights a variety of pre-tournament estimates of the economic benefits of numerous recent World Cups, ranging from tourist arrivals and country income to employment.

The World Cup can also provide potential benefits long after the teams and their fans have returned home. First, the tournament might leave a legacy of stadiums that can be used by future generations. Second, investments in general infrastructure can provide long-run returns and improve the livability of host cities. Third, the media attention surrounding the World Cup can serve as an advertising campaign that serves to promote the area as a destination for future tourism or business activity.

The Benefits of Hosting the World Cup – The Reality

The question facing potential host countries is whether the rosy forecasts predicted in Table 4 actually occur in reality. At times, the predictions are so outlandish as to defy common sense. For example, it is hard to believe a four-week long soccer tournament could really generate anywhere near the $70 billion impact that the Brazilian Ministry of Sports predicted in 2014, a figure that would represent nearly 4% of the annual Brazilian GDP. But even when the predictions are in the realm of reality, there are several common problems that can occur when *ex ante* economic impact studies are created.

The first problem is the substitution effect. To the extent that locals attend the World Cup, they are simply spending money on one consumption activity rather than another. Instead of increasing the total size of a country's economy, the World Cup simply shifts around where money is being spent in the economy. For this reason, most academic economists suggest that spending by locals on a mega-event like the World Cup should be excluded from any economic impact estimates.

The second problem is crowding out. The crowds and congestion associated with the World Cup may dissuade other travelers from entering the host country during the tournament.

Obviously, it is fair game to count the spending of foreign visitors as a benefit of the World Cup. But a complete economic accounting of the event would also have to include spending by people who would have come to the country but didn't thanks to the World Cup. To quote the famous American baseball player Yogi Berra, a man known for his eclectic wisdom, "Nobody goes there anymore. It's too crowded."

Evidence of crowding out can clearly be seen in several World Cup tournaments. In the US, the city that appeared to fare the worst economically among host cities during the 1994 World Cup was Orlando, Florida, home to Disneyworld. (Baade and Matheson, 2004) Thanks to being the home of the world's most famous mouse, Orlando's hotels are typically full to capacity during the summer months, anyway. The possibility that soccer fans, who may have completely different spending patterns to other vacationers, could have displaced a significant numbers of Disneyworld visitors with soccer fans, might explain Orlando's poor economic performance during the tournament. Similarly, France, a wildly popular summer tourist destination showed no apparent increase in international tourism during the 1998 World Cup. (Allmers and Maennig, 2009)

On the other hand, Brazil had the good fortune of hosting the World Cup in June and July, the normal winter in the southern hemisphere, and hence a time when tourism is generally low. Thus, the World Cup would be expected to have crowded out fewer tourists in Brazil than in popular tourist destinations in the northern hemisphere. Baumann and Matheson (2018) find that overall international tourist arrivals in Brazil during the 2014 World Cup were roughly one million above what would have been normally expected during that time period, a figure that actually exceeded the predictions of the organizers. As noted by Baumann and Matheson, a large part of the surge in tourism was due to the on-field success of the Argentinian national team. Its

march to the championship game brought huge numbers of fans across the border from neighboring Argentina. Without this piece of luck for the Brazilian organizers, Baumann and Matheson estimate that as many at one-quarter million fewer foreign travelers would have entered Brazil during the tournament.

A final source of potential bias in *ex ante* economic estimates are leakages. A leakage occurs when money is spent within an economy but doesn't stick in the economy or increase the incomes of members of the economy. As can be seen in Table 1, fans spent roughly $500 million on tickets during the 2014 World Cup. However, FIFA collected all of this revenue and only a fraction of World Cup revenues was spent in Brazil. The rest was repatriated to FIFA headquarters in Switzerland or redistributed to member countries throughout the world. Similarly, hotels may charge three or four times their normal room rates during a mega-event like the World Cup, but they rarely increase the wages of their desk clerks or room cleaners by a similar multiple. Thus, the higher hotel prices mean higher hotel profits, and to the extent that hotels are part of international chains, those excess profits leave the country.

Table 5 shows the results of a variety of *ex post* statistical analyses of past World Cups. As opposed to *ex ante* analyses that attempt to predict the economic impact of the event prior to the first game kicking off, *ex post* studies examine any available economic data to determine if the World Cup had a demonstrable effect on the host country or the host cities with the country. The results generally show that the observed impact of the World Cup has been a fraction that touted by the event boosters, and frequently the observed impact has actually been negative.

Evidence of long-run economic impact has also been elusive. Both FIFA and local organizing committees have attempted to ensure at least some positive financial legacy by dedicating a portion of the event's revenues to a legacy fund. In Brazil, FIFA directed $100

million their revenues to the "2014 FIFA World Cup Legacy Fund," an endowment designed to promote opportunities for young athletes in Brazil. While this is a fine gesture, $100 million is a tiny fraction of money spent by the Brazilian government to host the event. In fact, had the Brazilian government instead dedicated the public money it spent on hosting the World Cup towards youth soccer, it could have created a $11.6 billion "We Didn't Host the 2014 FIFA World Cup Legacy Fund." On the other hand, the very successful 1994 US World Cup required almost no public contribution of taxpayer money and left event organizers with a large profit. These leftover funds were used to endow the US Soccer Foundation which still provides monetary grants to grassroots soccer programs in the US to this very day.

The World Cup can also leave a country with new or refurbished soccer stadiums. Unfortunately, even when the new stadiums are actively used, academic studies of sports facilities on host communities are nearly unanimous in finding little or no economic benefits associated with stadiums and arenas (Coates and Humphreys, 2008). Worse yet, recent World Cups have a history of leaving behind white elephants, stadiums with little use once the World Cup is over.

As described by Matheson (2014), numerous World Cup hosts, including South Korea, South Africa, and Brazil, have built expensive new stadiums that went largely unused after the World Cup. The average South Korean World Cup stadium, with a capacity of nearly 50,000 seats, hosted events that totaled under 200,000 fans over the course of the entire year in 2010. Several South African stadiums of like size hosted a similarly meager number of guests in 2013. Brazil has perhaps fared the worst of any recent host with underused stadiums in Manaus and Cuiabá hosting no high-level soccer matches or other events while the iconic Maracanã Stadium

in Rio has fallen into disrepair. In fact, the current primary use for the $298 million Arena da Amazônia in Manaus is as a bus depot. (Garcia-Navarro, 2015)

General infrastructure improvements clearly have the potential for better economic returns. It is often argued that the World Cup can serve as a catalyst for urban redevelopment and that hosting a mega-event can generate the political will required to undertake needed infrastructure investments. However, there is no reason to believe that the investments required to host the World Cup will provide higher returns than alternative infrastructure projects that could have been carried out instead. Also, while the firm deadlines provided by the World Cup may constrain cities to follow projects through to timely completion, the same deadlines may raise costs due to time pressures and labor constraints. (Baade and Matheson, 2004)

The scramble to finish stadium projects in Brazil caused many cities to scrap plans for general infrastructure improvements. After all, the stadiums needed to be completed in order for the event to take place while the general infrastructure improvements were arguably more important but less urgent. Only 5 of the 35 mass transit light rail projects planned for host cities nationwide in Brazil were completed in time for the 2014 World Cup while in Natal, only half of the planned general infrastructure World Cup projects were even started. (NBC, 2014) Thus, Brazil was left with all of the stadiums, which had limited long-run growth effects, but little in the way of general infrastructure improvements, which had a much higher potential to lead to future economic growth.

The World Cup can also serve to "put a country on the map" as a tourist destination. Given the way the tournament draws in massive television viewing audiences worldwide, the event can work as global tourism advertisement leading to more general tourism once the soccer crowds leave town. There is, indeed, some evidence that the general patterns of tourism in Brazil

have changed, and increased, since the 2014 World Cup, although not enough time has passed since the event to determine if this is a permanent pattern. (Baumann and Matheson, 2018)

Zimbalist (2015) argues that mega-sporting events are generally poorly positioned to promote future tourism growth. Perhaps the most important tool for tourism promotion is word-of-mouth advertising. Normally, when a person returns from an exotic (at least to Americans or Europeans) destination like Brazil, that person's experiences are likely to influence friends and family to visit Brazil in the future. When a person attends a sporting event, like the World Cup, in an exotic destination like Brazil, that person's experiences are likely to influence friends and family to attend that event in the future. Thus, Brazil's 2014 World Cup doesn't generate future tourism for Brazil. Instead it generates future tourism for Russia's 2018 World Cup.

Why Do Countries Continue to Host?

If the World Cup tends to offer only a low chance of providing host countries with positive net benefits, why do nations keep lining up to host these events? At least three possibilities arise. First, even if the overall effect of holding the tournament is typically negative, the event will likely still create winners and losers. The typical Brazilian taxpayer may have lost out on the World Cup. In the run-up to the event, Brazilians took to the streets by the hundreds of thousands in protest as austerity measures in certain cities cut funding for transportation, education, and health care while still providing lavish funding for stadium projects. But, of course, the heavy construction firms benefitting from the large World Cup building contracts weren't complaining or marching in protest.

A second plausible reason is that economic concerns may only play a small role in a country's decision whether or not to stage the World Cup. Clearly neither Russia nor Qatar's

decisions to host the 2018 and 2022 World Cups, respectively, had much to do with a strict monetary cost-benefit analysis. Instead, these tournaments reflect the desires and egos of the countries' autocratic leaders and as a demonstration of the countries' worldwide economic and political power.

Third, countries may be thinking of the feel-good effect or national pride rather than a strict dollar accounting. While the World Cup may not make countries rich, there is definitely some evidence that it makes people happy. In their examination of the 2006 World Cup in Germany, Allmers and Maennig (2009) find only limited direct economic benefits of hosting the event (see Table 5), but they also report a large increase in the reported happiness of German citizens following the event. And anecdotally, the 2006 World Cup witnessed the first time in half a century that large numbers of German citizens were willing to fly the German flag from their residences or small businesses. Similarly, South Africa's 2010 World Cup was folly based solely on their preparation expenditures compared to their increased tourist revenues. But the country clearly relished its role as the first African World Cup host. This pride is reflected in the lyrics of FIFA's official song of the 2010 World Cup, "This time for Africa." (Shakira, 2010)

At the very least, hosting provides a clear advantage for the host country's own national team. Not only does the host country's team automatically qualify for the tournament, teams have historically performed well on their own home turf. For example, England's lone World Cup championship (and indeed its only appearance in the finals) occurred in 1966, the only time the tournament has been held in the UK. Of course, given the tournament's multi-billion dollar price tag, making the decision to host the event simply as a method of improving a national team's chances on the world stage is likely to give all but the most ardent fans pause.

Conclusion and Solutions to the Economic Viability Problem

Hosting the World Cup is potentially a very expensive proposition. However, the event has clear potential rewards as well. There are several suggestions that can be made to improve the chances of a host country making economic gains from the event. First, the event is much more likely to succeed economically in countries with sufficient existing infrastructure. When the United States bid for the 2022 World Cup, it initially identified 70 existing stadiums across the country that could be made to meet FIFA standards for hosting a World Cup match at little or no additional expense. Instead, FIFA chose Qatar in a bidding process widely suspected to be tainted by bribery. Qatar is a country smaller than Belgium in both area and population, had no significant soccer history, and possessed only one existing stadium that was suitable at that time for international soccer matches. It comes as no surprise that the Qatar 2022 World Cup is on pace to be by far the most expensive mega-event ever conducted.

Second, FIFA could permit and encourage bids from multiple countries. Even a country like England with its rich soccer tradition and the world's most lucrative professional league has only 10 stadiums (of the required 12) that meet FIFA's 40,000 seat requirement for the World Cup. But if England were to jointly host with Scotland, Wales, and Northern Ireland, the bidding countries would easily have sufficient stadium infrastructure already in place to host the tournament. Multi-country bids are likely to become even more relevant as FIFA increases the size of the tournament to 48 teams in 2026.

Finally, FIFA needs to continue to root out the systematic corruption that seems to pervade so many aspects of FIFA's business dealings. Without a commitment to a bidding process that is not rigged in favor of corrupt host nations, there is no reason to suppose that future hosting decisions will follow any degree of rational decision-making.

References

Allmers, Swatje and Wolfgang Maennig. 2009. "Economic Impacts of the FIFA Soccer World Cups in France 1998, Germany 2006, and Outlook for South Africa 2010," *Eastern Economic Journal*, Vol. 35:4, pp. 500-519.

Associated Press. 2017. "Russia's 2018 Cup costs grow by $600 million," *USA Today*, https://www.usatoday.com/story/sports/soccer/2017/10/24/russias-2018-world-cup-costs-grow-by-600m/106953076/, posted October 24, 2017.

Associated Press. 2018. "Russia Predicts World Cup will have a $31 billion economic impact," *ESPN.com*, http://www.espn.com/soccer/fifa-world-cup/story/3471440/russia-predicts-world-cup-will-have-$31-billion-economic-impact, posted April 25, 2018.

Baade, Robert and Victor Matheson. 2004. "The Quest for the Cup: Assessing the Economic Impact of the World Cup," *Regional Studies*, Vol. 38:4, pp. 343-354.

Baade, Robert and Victor Matheson. 2016. "Going for the Gold: The Economics of the Olympics," *Journal of Economic Perspectives*, Vol. 30:2, pp. 201-218.

Baumann, Robert, Bryan Engelhardt, and Victor Matheson. 2012. "Labor Market Effects of the World Cup: A Sectoral Analysis," in *International Handbook on the Economics of Sporting Mega Events*, Andrew Zimbalist and Wolfgang Maennig, eds., (Cheltenham, UK: Edward Elgar), pp. 385-400.

Baumann, Robert and Victor Matheson. 2018. "Mega-Events and Tourism: The Case of Brazil," *Contemporary Economic Policy*, Vol. 36:2, pp. 292-301.

BBC. 2017. "Qatar spending $500m a week on World Cup infrastructure projects," http://www.bbc.com/news/world-middle-east-38905510, posted February 8, 2017.

Coates, Dennis and Brad R. Humphreys. 2008. "Do Economists Reach a Conclusion on Subsidies for Sports Franchises, Stadiums, and Mega-Events?" *Econ Journal Watch* 5:3, pp. 294-315.

Deutsche Welle. 2006. "World Cup to Boost German Economy," http://www.dw.com/en/world-cup-to-boost-german-economy/a-1842332, posted January 2, 2006.

Du Plessis, Stan and Wolfgang Maennig. 2010. "The 2010 FIFA World Cup high frequency data economics: Effects on international tourism and awareness for South Africa," *Development Southern Africa*, Vol. 28:3, pp. 349-365;

Feddersen, Arne and Wolfgang Maennig. 2012. "Sectoral labour market effects of the 2006 FIFA World Cup," *Labour Economics*, Vol. 19:6, pp. 860–869.

Fourie, Johan and Maria Santana-Gallego. 2011. "The Impact of Mega-Sport Events on Tourist Arrivals," *Tourism Management*, Vol. 32, pp. 1364–70.

Hagn, Florian and Wolfgang Maennig. 2008. "Employment Effects of the Football World Cup 1974 in Germany," *Labour Economics*, Vol. 15:5, pp. 1062–75.

Finer, Jon. 2002. "The grand illusion," *Far Eastern Economic Review*, March 7, 2002, pp. 32–36.

Garcia-Navarro, Lulu. 2015. "Brazil's World Cup Legacy Includes $550M Stadium-Turned-Parking Lot," *National Public Radio*, https://www.npr.org/sections/parallels/2015/05/11/405955547/brazils-world-cup-legacy-includes-550m-stadium-turned-parking-lot, posted May 11, 2015.

Goodman, R. and R. Stern. 1994. "Chicago hosts opening game of World Cup," *Illinois Parks and Recreation*, Vol. 25:3, pg. 34.

Guardian. 2017. "Russia 2018 World Cup: the complete guide to all the stadiums," *The Guardian*, https://www.theguardian.com/football/2017/nov/30/russia-2018-world-cup-the-complete-guide-to-all-the-stadiums-venues, posted November 30, 2017.

Leeds, Michael, Peter von Allmen, and Victor Matheson. 2018. "The Economics of Sports, 6th ed.," London: Routledge.

Manfred, Tony. 2015. "FIFA made an insane amount of money off of Brazil's $15 billion World Cup," *Business Insider*, http://www.businessinsider.com/fifa-brazil-world-cup-revenue-2015-3, posted March 20, 2015.

Matheson, Victor. 2014. "Were the Billions Brazil Spent on World Cup Stadiums Worth It?" *FiveThirtyEight*, https://fivethirtyeight.com/features/were-the-billions-brazil-spent-on-world-cup-stadiums-worth-it/, posted June 28, 2014.

Matheson, Victor, Daniel Schwab, and Patrick Koval. 2018. "Corruption in the Bidding, Construction, and Organization of Mega-Events: An Analysis of the Olympics and World Cup," in *The Palgrave Handbook on the Economics of Manipulation in Professional Sports*, Markus Breuer and David Forrest, eds., (New York: Palgrave McMillan).

NBC. 2014. "Analysis: Brazil Scramble to Get Ready as World Cup Looms," *NBC News*, https://www.nbcnews.com/storyline/world-cup/analysis-brazil-scrambles-get-ready-world-cup-looms-n127571, posted June 10, 2014.

Peeters, Thomas, Victor Matheson, and Stefan Szymanski. 2014. "Tourism and the 2010 World Cup: Lessons for Developing Countries," *Journal of African Economies*, Vol. 23:2, pp. 290-320.

Rapoza, Kenneth. 2014. “Bringing FIFA to Brazil Equal to Roughly 61% Of Education Budget,” *Forbes*, posted June 11, 2014.

Shakira. 2010. “Waka Waka (This Time for Africa),” Epic Records.

Szymanski, Stefan. 2002. “The Economic Impact of the World Cup,” *World Economics*, Vol. 3:1, pp. 169-177.

Tharoor, Ishaan. 2016. “These global sporting events totally dwarf the Super Bowl,” *Washington Post*, https://www.washingtonpost.com/news/worldviews/wp/2016/02/05/these-global-sporting-events-totally-dwarf-the-super-bowl/?noredirect=on&utm_term=.49a09d04e271, posted February 5, 2016.

Voigt, Kevin. 2010. “Is there a World Cup economic bounce?” CNN.com, http://edition.cnn.com/2010/BUSINESS/06/11/business.bounce.world.cup/index.html, posted June 11, 2010.

Zimbalist, Andrew. 2015. “Circus Maximus: The Economic Gamble Behind Hosting the Olympics and the World Cup,” (Washington DC: Brookings Institution Press).

Table 1: Selected FIFA World Cup Expenses 2011-2014

Expenses ($USD millions)	**$2,224**
Contributions to the Local Organizing Committee	$453
Prize money and preparation cost payments	$406
TV production	$370
Marketing, ticketing, IT solutions, and hospitality	$203
2014 FIFA World Cup Legacy Fund	$100
Team/referee lodging and travel	$56
Legal, financial, and insurance	$64
Other	$572

Source: Manfred (2015)

Table 2: World Cup Host Country Expenses

World Cup	**Type of Spending**	**Spending (Nominal, $USD millions)**	**Source**
United States, 1994	Stadiums	$5	Matheson (2014)
France, 1998	Stadiums	$603	Matheson (2014)
Japan/S. Korea, 2002	Stadiums (Japan) Stadiums (S. Korea)	$2,939 $1,687	Matheson (2014)
Germany, 2006	Stadiums	$1,905	Matheson (2014)
South Africa, 2010	Stadiums Total	$2,120 $3,900	Matheson (2014) Voigt (2010)
Brazil, 2014	Stadiums Total	$3,609 $11,630	Matheson (2014) Raposa (2014)
Russia, 2018	Stadiums Total	$5,324 $11,800	Guardian (2017) AP (2017)
Qatar, 2022	Total	$200,000 (est.)	BBC (2017)

Table 3: FIFA World Cup Revenue 2011-2014

Revenues ($USD millions)	**$4,826**
Media/TV rights	$2,428
Marketing rights/sponsorships	$1,580
Ticketing	$527
Hospitality rights (concessions, etc.)	$184
Licensing rights	$107

Source: Manfred (2015)

Table 4: Examples of Mega-Event *ex ante* Economic Impact Studies

Event	**Impact**	**Source**
1994 USA	$4 billion	Goodman and Stern (1994)
2002 Japan	$24.8 billion	Dentsu Institute for Human Studies, reported in Finer (2002)
2002 South Korea	$8.9 billion	Dentsu Institute for Human Studies, reported in Finer (2002)
2006 Germany	60,000 jobs, up to €10 billion	German Chamber of Commerce, reported in Deutsche Welle (2006)
2006 Germany	3.3 million foreign tourists, 5 million hotel nights, €3.4 billion	German Federation of Hotels, reported in Allmers and Maennig (2009)
2010 South Africa	$12 billion, 483,000 visitors	Grant Thornton South Africa, reported in Voigt (2010)
2014 Brazil	$70 billion, 600,000 visitors	Brazilian Ministry of Sports, reported in Raposa (2014)
2018 Russia	$26 - 30.8 billion, 220,000 jobs	Associated Press (2018)

Table 5: Examples of Mega-Event *ex post* Economic Impact Studies

Event	**Impact**	**Source**
1970-2000 Various	World Cup hosts show a 2.4% lower GDP growth rate in year of tournament. Statistically significant.	Szymanski (2002)
1974 Germany	No statistically significant short-run or long-run employment gains.	Hagn and Maennig (2008)
1994 USA	Drop in income in host cities of $5.5-$9.3 billion. Not statistically significant.	Baade and Matheson (2004)
1994 USA	No effect on labor markets in leisure and hospitality, or business service sectors. Loss of 1,500 jobs per host city in retail sector.	Baumann, Engelhardt, and Matheson (2012)
1998 France	No impact on hotel stay, national tourism income, or retail sales.	Allmers and Maennig (2009)
2006 Germany	No overall job gains, 2,600 new jobs in in hospitality sector.	Feddersen and Maennig (2012)
2006 Germany	100,000 tourists, 708,000 hotel nights, €570 million income.	Allmers and Maennig (2009)
2010 South Africa	40,000-90,000 arrivals from non-neighboring countries.	Du Plessis and Maennig (2010)
2010 South Africa	220,000 additional arrivals from non-SADC countries.	Peeters, Matheson, and Szymanski (2014)
2014 Brazil	Roughly 1,000,000 additional arrivals, 250,000 due to Argentina in final.	Baumann and Matheson (2018)